

### **REMARKS**

Reconsideration of this application is requested.

The claims pending in the application remain as claims 1-4, 7-12, 15-20 and 24-29.

Claims 1 and 9 have been amended so that in the compound of Formula (1), x is defined as "greater than 0 and less than 1.2". Basis for this change is found in original claims 6 and 14 and the corresponding disclosure at page 3, line 15.

Additionally, claims 1 and 9 have been amended to specify that R<sup>1</sup> and R<sup>2</sup> are H while the original definition of R<sup>3</sup> as H or optionally substituted C<sub>1-4</sub>alkyl has been retained.

The Examiner is requested to reconsider the provisional double-patenting rejection of claims 1-4, 7-12, 15-20 and 24-29 in view of the attached Terminal Disclaimer with respect to applicant's related Appln. No. 10/530,895.

The Examiner is also requested to reconsider the Section 102(b) rejection of claims 1-4, 9-12, 26, 27 and 29 as anticipated by Robertson et al. (U.S. 6,149,722). The claims as amended clearly and patentably distinguish from the Robertson et al. disclosure.

More specifically, it is noted that Examples 1 and 2 in Robertson et al. are the only specific examples in the broad disclosure of U.S. 6,149,722 which are directly relevant to phthalocyanines of the specific type called for by the applicants. However, applicant's claim 1, as amended, distinguishes over the phthalocyanines of reference Examples 1 and 2 in calling for x, the average number of sulfonate groups, to be greater than 0 and less than 1.2. In Examples 1 and 2 of Robertson et al., the average number of sulfonate groups (i.e. x is 2). Thus, the process of claim 1 is novel over any specific disclosure in Robertson et al. as are the dependent claims 2, 3 and 4. The compositions of claims 9 to 12 are also novel since there is no specific disclosure in Robertson et al. of a composition comprising a compound of Formula (1). Furthermore, claims 26, 27 and 29 are novel since they incorporate the novel processes and compositions of claim 1 or claim 9 as essential elements.

For the reasons noted, it is submitted that the Examiner's Section 102(b) rejection of claims 1-4, 9-12, 26, 27 and 28 should be withdrawn. No comment seems to be necessary with respect to applicant's claims 7, 8, 15 and 16, as these have not been included in the rejection. It is noted, however, that these claims should also be allowable over Robertson et al., not only because of the specific

features therein, which have been recognized as distinguishing over Robertson et al., but also because of their dependence from claim 1 or claim 9 which, as noted, are thought to be allowable.

Reconsideration and withdrawal of the Section 102(e) rejection of claims 1, 3, 4, 9, 11, 12, 26, 27 and 29 as anticipated by Andrievsky et al. is also thought to be in order and is requested.

Andrievsky et al. teach inks containing a phthalocyanine with sulfonate and substituted sulfonamide substituents. Applicant's claims 1 and 9 (as amended) require that the phthalocyanine of Formula (1) has sulfonate, substituted sulfonamide and an unsubstituted sulfonamide substituent (i.e.  $R^1$  and  $R^2$  are both hydrogen and  $y$  is greater than 0). Thus, claims 1 and 9 patentably distinguish over Andrievsky et al. Claims 3, 4, 11, 12, 26, 27 and 29 depend from either claim 1 or claim 9 and, therefore, distinguish over the reference for at least the same reasons.

The Examiner is also requested to reconsider and withdraw the Section 103(a) rejection of claims 1-4, 9-12, 26, 27 and 29 as unpatentable over Kanaya et al. (U.S. 5,704,969). The applicant's invention as defined by the amended claims is not obvious from Kanaya et al.

More specifically, the applicant's invention is concerned with water soluble dyes which demonstrate an enhanced ozone fastness. A person of ordinary skill would not be motivated by Kanaya et al. to arrive at the invention of claims 1 to 4, 9 to 12, 26, 27 and 29. Firstly, Kanaya et al. do not mention ozone fastness as being a particular problem with ink-jet printing. Secondly, Kanaya et al. do not suggest any particular advantage for Z being -OH versus the other possible alternatives. Thirdly, if a person of ordinary skill did decide on an analogue wherein Z was -OH, despite there being no motivation for them to do this, then Kanaya et al. Column 4, lines 49-50 would direct them to n being 5 to 15, i.e. away from n being 1 as in the present invention (where  $R^4$  is  $C_{1-4}$ hydroxyalkyl). Accordingly, it is respectfully submitted that applicant's claims 1 and 9, and the rejected claims which are dependent thereon (claims 2-4, 10-12, 26, 27 and 29) define subject matter which is not in any sense obvious from Kanaya et al. Withdrawal of the rejection of these claims based on Kanaya et al., therefore, should be withdrawn.

While the Examiner has applied Robertson et al. and Andrievsky et al. only under Section 102(b) or 102(e), it is noted that the applicant's invention as claimed is not only novel over these references but also clearly unobvious therefrom as the

Examiner has apparently recognized. In this connection, it is noted that the applicant's specification includes as a Comparative Example, an ink made from the compound of Example 1 of Robertson et al. Consideration of Table 2 on pages 10 and 11 of the present application shows that ink made from the Comparative Example, which differs from the inks of the invention only in the higher level of phthalocyanine sulfonation, yielded ink-jet prints with a significantly lower ozone fastness. A person of ordinary skill would, at most, only consider varying the degree of sulfonation of a phthalocyanine as a means to fine tune the aqueous solubility of the dye. They would not expect that a dye with a lower level of sulfonation would yield prints with an enhanced ozone fastness. This surprising effect shows that the processes, inks, compounds and associated uses called for by the applicant's claims are clearly unobvious from and inventive over Robertson et al.


The same conclusion is true with respect to the Andrievsky et al. patent. This reference is concerned with phthalocyanine pigments able to act as self-dispersed particles. In the field of ink-jet printing, the formulation of dye and pigment inks are very different and considered to be two separate areas (see Andrievsky et al., Col. 1, line 39 to Col. 2, line 28). In the first instance, a person of ordinary skill who was looking to improve the ozone fastness of an ink-jet dye would not be motivated to consider Andrievsky et al. which is concerned with pigments.

If a person of ordinary skill did consider Andrievsky et al., then, if anything, the obvious thing to do to increase the water solubility of the pigments and arrive at ozone fast dyes is either to increase the level of sulfonation of the phthalocyanine or introduce water solubilizing groups on to the substituents of the phthalocyanine. Nothing in Andrievsky et al. would motivate the person of ordinary skill to, for example, add an unsubstituted sulfonamide.

For all of the reasons given above, it is submitted that this application should be allowed. Accordingly, such action is requested.

Respectfully submitted,

MORGAN LEWIS & BOCKIUS LLP

By  Reg. No. 54,478  
for Paul N. Kokulis  
Reg. No. 16773

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Customer No. 09629  
1111 Pennsylvania Avenue, N.W.  
Washington, D.C. 20004  
Phone: (202) 739-3000  
Facsimile: (202) 739-3001  
Direct: (202) 739-5455